tvstudy v2.2.3 (Dxtpx3)
Database: localhost, Study: KMPH-CD 19 TUM 15K 171020, Model: Longley-Rice
Start: 2017.10.20 14:19:43

Study created: 2017.10.20 14:19:07

Study build station data: LMS TV 2017-10-01 (38)

    Proposal: KMPH-CD D19 DC APP MERCED-MARIPOSA, CA
 File number: KMPH-CD 19 TUM 15K 171020
 Facility ID: 168338
Station data: User record
   Record ID: 2165
     Country: U.S.

Build options:
Protect LPTV records from Class A

Search options:
Non-U.S. records included
Stations affected by proposal:

Call	Chan	Svc	Status	City, State	File Number	Distance
KUVS-DT	D18	DT	LIC	MODESTO, CA	BLCDT20020906ABH	89.4 km
KFAZ-CA	D18	DC	LIC	VISALIA, CA	BLANK0000001548	109.5
KBBV-CD	D19	DC	LIC	BAKERSFIELD, CA	BLDTA20110930BHC	264.4
K19KG-D	D19	LD	CP	NEWMAN, CA	BNPDTL20100513ADT	92.4
KSTS	D19	DT	CP	SAN JOSE, CA	BLANK0000027737	162.7
KCOY-TV	D19	DT	LIC	SANTA MARIA, CA	BLCDT20030604ACM	291.9
KMBY-LD	D19	LD	LIC	TEMPLETON, CA	BLDTL20100520ADV	179.9
KSEE	D20	DT	APP	FRESNO, CA	BLANK0000029688	73.9

No non-directional AM stations found within 0.8 km

No directional AM stations found within 3.2 km

Record parameters as studied:

    Channel: D19
       Mask: Stringent
   Latitude: 37 31 59.00 N (NAD83)
  Longitude: 120 1 37.00 W
Height AMSL: 1297.7 m
       HAAT: 0.0 m
   Peak ERP: 15.0 kW
    Antenna: DIE TUM TU01_02 T at 145 degs 0.0 deg
Elev Pattrn: Generic

49.3 dBu contour:

Azimuth	ERP	HAAT	Distance
0.0 deg	0.096 kW	589.5 m	37.9 km
45.0	1.51	430.8	50.6
90.0	12.6	306.1	57.0
135.0	8.92	666.4	68.3
180.0	13.3	675.8	71.3
225.0	6.19	800.8	68.5
270.0	0.144	705.3	42.3
315.0	0.052	680.1	35.7

Database HAAT does not agree with computed HAAT
Database HAAT: 0 m   Computed HAAT: 607 m

**Proposal service area extends beyond baseline plus 1.0%
Proposal service area population is more than 95.0% of baseline

Distance to Canadian border: 1222.0 km

Distance to Mexican border: 596.8 km

Conditions at FCC monitoring station: Livermore CA
Bearing: 278.5 degrees   Distance: 153.6 km

Proposal is not within the West Virginia quiet zone area

Conditions at Table Mountain receiving zone:
Bearing: 72.8 degrees Distance: 1309.5 km

No land mobile station failures found

Study cell size: 1.00 km
Profile point spacing: 1.00 km

Maximum new IX to full-service and Class A: 0.50%
Maximum new IX to LPTV: 2.00%

Interference to BLCDT20020906ABH LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KUVS-DT	D18	DT	LIC	MODESTO, CA	BLCDT20020906ABH	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	89.4 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	89.4
	KFAZ-CA	D18	DC	LIC	VISALIA, CA	BLANK0000001548	198.7
	KRNS-CD	D18	DC	CP	RENO, NV	BLANK0000028413	151.5
	KMUM-CD	D19	DC	CP	SACRAMENTO, CA	BLANK0000026704	92.6
	KSTS	D19	DT	CP	SAN JOSE, CA	BLANK0000027737	122.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
31442.8	4,044,636	29913.8	3,992,285	29662.0	3,981,137	29632.6	3,981,124	0.10	0.00

Undesired	Total IX	Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	87.4	15	24.4	15	
KMPH-CD D19 DC APP	130.1	28		53.8	28
KFAZ-CA D18 DC LIC	146.1	1,661	83.1	1,661	69.9	1,661
KRNS-CD D18 DC CP	31.2	2	31.2	2	31.2	2
KMUM-CD D19 DC CP	35.9	5,379	35.9	5,379	35.9	5,379
KSTS D19 DT CP	14.2	4,091	14.2	4,091	14.2	4,091

Interference to BLANK0000001548 LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KFAZ-CA	D18	DC	LIC	VISALIA, CA	BLANK0000001548	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	109.5 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	109.5
	KUVS-DT	D18	DT	LIC	MODESTO, CA	BLCDT20020906ABH	198.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
7368.0	1,024,328	6857.6	1,019,205	6855.6	1,019,205	6848.7	1,019,205	0.10	0.00

Undesired	Total IX	Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	0.0	0	0.0	0	
KMPH-CD D19 DC APP	8.0	0		7.0	0
KUVS-DT D18 DT LIC	2.0	0	2.0	0	1.0	0

Interference to BLDTA20110930BHC LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KBBV-CD	D19	DC	LIC	BAKERSFIELD, CA	BLDTA20110930BHC	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	264.4 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	264.4

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
11186.6	712,684	9293.1	701,637	9288.1	701,637	9257.0	701,630	0.33	0.00

Undesired	Total IX	Unique IX, before	Unique IX, after

KMPH-CD D19 DC BL				5.0		0		5.0		0			
KMPH-CD D19 DC APP				36.1		7				36.1		7	

Interference to BNPDTL20100513ADT CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	K19KG-D	D19	LD	CP	NEWMAN, CA	BNPDTL20100513ADT	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	92.5 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	92.4
	K19FY	N19+	TX	LIC	CHICO, CA	BLTT20060109ABD	294.7

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
646.2	31,247	646.2	31,247	599.2	31,101	586.2	30,769	2.16	1.07

Undesired	Total IX		Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	47.1	146	47.1	146		
KMPH-CD D19 DC APP	60.0	478			60.0	478

Interference to BLANK0000027737 CP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSTS	D19	DT	CP	SAN JOSE, CA	BLANK0000027737	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	162.7 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	162.7
	KUVS-DT	D18	DT	LIC	MODESTO, CA	BLCDT20020906ABH	122.0
	KBBV-CD	D19	DC	LIC	BAKERSFIELD, CA	BLDTA20110930BHC	371.1
	KMUM-CD	D19	DC	CP	SACRAMENTO, CA	BLANK0000026704	138.7
	KCOY-TV	D19	DT	LIC	SANTA MARIA, CA	BLCDT20030604ACM	325.0
	K20JX-D	D20	DC	LIC	SACRAMENTO, CA	BLDTA20101006AAS	155.9

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
31619.4	7,651,695	23630.4	6,598,303	22209.7	6,452,815	22141.0	6,441,095	0.31	0.18

Undesired	Total IX		Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	476.2	54,875	73.2	0		
KMPH-CD D19 DC APP	898.5	100,282			141.9	11,720
KUVS-DT D18 DT LIC	670.9	67,621	14.1	5	5.0	5
KBBV-CD D19 DC LIC	8.0	0	0.0	0	0.0	0
KMUM-CD D19 DC CP	1222.1	115,416	523.0	47,754	402.0	26,868
KCOY-TV D19 DT LIC	97.1	30,067	92.1	30,067	91.1	29,930
K20JX-D D20 DC LIC	4.0	44	0.0	0	0.0	0

Interference to BLCDT20030604ACM LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KCOY-TV	D19	DT	LIC	SANTA MARIA, CA	BLCDT20030604ACM	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	291.9 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	291.9
	KBBV-CD	D19	DC	LIC	BAKERSFIELD, CA	BLDTA20110930BHC	157.0
	KSTS	D19	DT	CP	SAN JOSE, CA	BLANK0000027737	325.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
27540.8	664,321	21946.9	449,998	21529.9	446,654	21495.1	446,647	0.16	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	37.7	0	14.9	0		
KMPH-CD D19 DC APP	139.1	16			49.7	7
KBBV-CD D19 DC LIC	375.2	3,285	292.8	982	248.2	980
KSTS D19 DT CP	86.4	2,362	26.8	59	23.8	56

Interference to BLDTL20100520ADV LIC, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KMBY-LD	D19	LD	LIC	TEMPLETON, CA	BLDTL20100520ADV	

Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	179.9 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	179.9
	K18JR-D	D18	LD	CP	MONTEREY, CA	BNPDTL20100426ABX	0.7
	KSTS	D19	DT	CP	SAN JOSE, CA	BLANK0000027737	109.0
	KCOY-TV	D19	DT	LIC	SANTA MARIA, CA	BLCDT20030604ACM	222.7
	KDTV-DT	D20	DT	CP	SAN FRANCISCO, CA	BLANK0000025150	109.0

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
12116.5	814,185	9008.4	676,376	8806.1	659,987	8777.0	659,987	0.33	0.00

Undesired	Total IX		Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	1.0	0	0.0	0		
KMPH-CD D19 DC APP	30.1	0			29.1	0
K18JR-D D18 LD CP	5.0	53	3.0	51	3.0	51
KSTS D19 DT CP	195.3	16,338	182.3	14,935	182.3	14,935
KCOY-TV D19 DT LIC	8.0	917	4.0	0	4.0	0
KDTV-DT D20 DT CP	6.0	484	0.0	0	0.0	0

Interference to BLANK0000029688 APP, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KSEE	D20	DT	APP	FRESNO, CA	BLANK0000029688	
Undesireds:	KMPH-CD	D19	DC	BL	MERCED-MARIPOSA, CA	DTVBL168338	73.9 km
	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	73.9
	KBBV-CD	D19	DC	LIC	BAKERSFIELD, CA	BLDTA20110930BHC	194.7
	KDTV-DT	D20	DT	CP	SAN FRANCISCO, CA	BLANK0000025150	221.5
	KFTV-DT	D21	DT	CP	HANFORD, CA	BLANK0000025107	0.5

Service area		Terrain-limited		IX-free, before		IX-free, after		Percent New IX	
32527.2	1,763,174	29067.1	1,747,509	28565.8	1,739,189	28113.4	1,735,127	1.58	0.23

Undesired	Total IX		Unique IX, before		Unique IX, after	
KMPH-CD D19 DC BL	222.3	229	219.3	225		
KMPH-CD D19 DC APP	698.9	4,462			671.6	4,287
KBBV-CD D19 DC LIC	11.1	526	11.1	526	11.1	526
KDTV-DT D20 DT CP	95.2	65	94.2	65	88.1	65
KFTV-DT D21 DT CP	176.8	7,504	172.7	7,500	154.5	7,329

Interference to proposal, scenario 1

	Call	Chan	Svc	Status	City, State	File Number	Distance
Desired:	KMPH-CD	D19	DC	APP	MERCED-MARIPOSA, CA	KMPH-CD 19 TUM 15K 171	
Undesireds:	KFAZ-CA	D18	DC	LIC	VISALIA, CA	BLANK0000001548	109.5 km
	KBBV-CD	D19	DC	LIC	BAKERSFIELD, CA	BLDTA20110930BHC	264.4
	KMUM-CD	D19	DC	CP	SACRAMENTO, CA	BLANK0000026704	182.0
	KCOY-TV	D19	DT	LIC	SANTA MARIA, CA	BLCDT20030604ACM	291.9
	KSEE	D20	DT	APP	FRESNO, CA	BLANK0000029688	73.9

Service area		Terrain-limited		IX-free		Percent IX	
9774.9	307,456	8491.8	298,636	8402.6	297,736	1.05	0.30

Undesired	Total IX		Unique IX		Prcnt Unique IX	
KFAZ-CA D18 DC LIC	17.0	51	2.0	51	0.02	0.02
KBBV-CD D19 DC LIC	52.1	649	21.2	156	0.25	0.05
KMUM-CD D19 DC CP	6.1	0	4.1	0	0.05	0.00
KCOY-TV D19 DT LIC	3.0	248	1.0	0	0.01	0.00
KSEE D20 DT APP	55.9	445	28.0	200	0.33	0.07